

WHAT IS CLAIMED IS:

1. A biodegradable mixture of polyesters comprising:
  - (A) a polyhydroxy acid of the poly-ε-caprolactone type and its copolymers with a molecular weight  $M_w$  greater than 50,000;
  - (B) a polyester of the diacid diol type with a molecular weight  $M_w$  greater than 60,000 and a melting point lying between 50 and 95°C;
  - (C) a polymer of polylactic acid which contains at least 75% L-lactic or D-lactic acid or their combinations with a molecular weight  $M_w$  greater than 30,000 in which the concentration of (A) varies with respect to (A + B) in the range of between 40 and 70% by weight, and the concentration of C with respect to (A + B + C) lies between 2 and 30, preferably between 5 and 25% by weight and with a UV stability measured on film of 25-30μm which has an average reduction in its tensile properties after 216 hours of exposure to UV rays less than 30% considered as the average reduction in breaking load, elongation at breakage and longitudinal breaking energy.
2. A biodegradable mixture of polyesters according to claim 1, in which the aliphatic polyester (B) has a modulus of elasticity lying between 200 and 900 MPa and a breaking elongation greater than 200%, more preferably greater than 300% for film with a thickness of 25-30μm produced by blown film formation.
3. A biodegradable mixture of polyesters according to claim 1 in which the polymer of polylactic acid (C) has a modulus of elasticity greater than 1500 MPa.
4. A biodegradable mixture of polyesters according to claim 1, in which the aliphatic polyester (B) has a melting point lying between 55 and 85°C, preferably between 57 and 80 °C.

10057607.012502

5. A biodegradable mixture of polyesters according to claim 1 in which the diacid content of the aliphatic polyester (B) in azelaic acid, sebacic acid, brassylic acid, or mixtures of these in concentrations, with respect to the total acid, greater than 50mole% and preferably greater than 70 mole%.
6. A biodegradable mixture of polyesters according to claim 1, combined with de-structured starch, raw starch or modified starch in which the starch is in dispersed phase, complexed or not complexed.
7. A film produced by mixtures of biodegradable polymers according to claim 1.
8. A film according to claim 7 characterised by a bidirectional tear resistance with the Elmendorf test lying between 5 and 100 N/mm, preferably 7 and 90 N/mm and more preferably between 10 and 80 N/mm.
9. A film according to claim 8 characterised in that the ratio between the tear resistance values according to the Elmendorf test in the transverse and longitudinal directions lies between 4.5 and 0.4.
10. A film according to claim 7, characterised in that the value of the modulus of elasticity lies between 200 and 1200 MPa, more preferably between 300 and 1000 MPa.
11. A multi layer film constituted by one or more layers of material according to claim 1, and at least one layer of material comprising aliphatic/aromatic polyester as such or in a blend with other polyesters and/or with de-structured starch.

10057607.012502

12. A multi layer film according to claim 11, in which the aliphatic/aromatic polyester is polybutylene terephthalate-adipate with a ratio between terephthalic and adipic acid less than 65 mole%, in a blend with de-structured starch and possibly polylactic acid.
13. Use of film according to claim 7 as a transparent agricultural mulch, as a green-house cover or for packaging straw and forage.
14. Use of film according to claim 7 for packaging food or for containing organic residues.
15. A solid sheet produced from mixtures according to claim 1 for food containers, pots for fish breeders, or industrial containers in general.
16. An expanded sheet produced from mixtures according to claim 1 for food or other containers and for industrial packaging.
17. Fibres produced from mixtures according to claim 1 for woven or non-woven textiles for use in industrial, clothing and sanitary sectors.
18. A coating material produced from mixtures according to claim 1 for application to paper, woven or non-woven fabric, or other layers of solid or expanded biodegradable material.